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| APPLICATION NO.                 | FI   | LING DATE    | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------------|------|--------------|-------------------------|---------------------|------------------|
| 09/891,511                      | (    | 06/27/2001   | Mamoru Nakasuji         | 010819              | 8779             |
| 23850                           | 7590 | 08/07/2003   |                         |                     |                  |
|                                 | ,    | STERMAN & HA | EXAMINER                |                     |                  |
| 1725 K STREET, NW<br>SUITE 1000 |      |              |                         | BERMAN, JACK I      |                  |
| WASHINGTON, DC 20006            |      | 20006        |                         | ART UNIT            | PAPER NUMBER     |
|                                 | •    |              |                         | 2881                |                  |
|                                 |      |              | DATE MAILED: 08/07/2003 |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| •   | Application No. Applicant(s)      |  |  |  |  |  |  |
|---|-----------------------------------|--|--|--|--|--|--|
| Office Action Summan  | 09/891,511                        | NAKASUJI ET AL.                                      |  |  |  |  |  |
| Office Action Summary   | Examiner                          | Art Unit   |  |  |  |  |  |
| <u> </u>  | Jack I. Berman                    | 2881   |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |                                   |  |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |                                   |  |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |                                   |  |  |  |  |  |  |
| 2a) ☐ This action is <b>FINAL</b> . 2b) ☐ Thi   | s action is non-final.            |  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims   |                                   |  |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-60</u> is/are pending in the application  |                                   |  |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                                   |  |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                                   |  |  |  |  |  |  |
| 6) Claim(s) is/are rejected.  |                                   |  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   |                                   |  |  |  |  |  |  |
| 8) Claim(s) <u>1-60</u> are subject to restriction and/or e   | election requirement.             |  |  |  |  |  |  |
| Application Papers  | nocion roganomonia                |  |  |  |  |  |  |
| 9) The specification is objected to by the Examine  | ſ.                                |  |  |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |                                   |  |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |                                   |  |  |  |  |  |  |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  |                                   |  |  |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                                   |  |  |  |  |  |  |
| 12) The oath or declaration is objected to by the Examiner.   |                                   |  |  |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                                   |  |  |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                                   |  |  |  |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:  |                                   |  |  |  |  |  |  |
| 1. Certified copies of the priority documents   | s have been received.             |  |  |  |  |  |  |
| 2. Certified copies of the priority documents   | s have been received in Applicati | on No  |  |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |                                   |  |  |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic  | ·                                 |  |  |  |  |  |  |
| a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.   |                                   |  |  |  |  |  |  |
| Attachment(s)   |                                   |  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)   | 5) Notice of Informal I           | y (PTO-413) Paper No(s) Patent Application (PTO-152) |  |  |  |  |  |
| J.S. Patent and Trademark Office  |                                   |  |  |  |  |  |  |

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Restriction to one of the following inventions is required under 35 U.S.C. 121:

- Claims 1-16 and 60, drawn to an inspection apparatus and method, classified in class 250, subclass 306.
- II. Claims 17-20, drawn to a charged particle beam inspection system having a retarding field type objective lens, E x B deflecting system, and an electric field intensity controlling electrode, classified in class 250, subclass 310.
- III. Claims 21-25, drawn to an E x B separator, classified in class 250, subclass 396R.
- IV. Claims 26-30, drawn to a projective type electron beam inspection apparatus having an E x B filter and pre-charging of the sample, classified in class 250, subclass 310.
- V. Claims 31-40, drawn to a charged particle beam imaging apparatus with a means for making the charge distribution on a sample uniform, classified in class 250, subclass 310.
- VI. Claims 41-49 and 55-59, drawn to a charged particle beam irradiation apparatus having an XY-stage supported by a hydrostatic bearing, classified in class 250, subclass 442.11.
- VII. Claims 50-54, drawn to a system for inspecting samples for defects, classified in class 250, subclass 310.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II, IV, V, and VII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the

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inspection apparatus and method of Invention I does not require: the retarding field type objective lens, E x B deflecting system, and electric field intensity controlling electrode of Invention II; the E x B filter and means for pre-charging a sample of Invention IV; the means for making the charge distribution on a sample uniform of Invention V; or the defect determination means of Invention VII.

Inventions I and III and VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require the E x B separator of Invention III or the XY-stage supported by a hydrostatic bearing of Invention VI. The subcombinations have separate utility such as an E x B filter in a scanning electron microscope and an XY-stage in a charged particle beam lithography system.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

A telephone call was made to William Brooks on August 1, 2003 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (703) 308-4849. The examiner can normally be reached on M-F (8:30-6:00) with every second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (703) 308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Jack I. Berman
Primary Examiner
Art Unit 2881

jb August 5, 2003